



APPLICATION FOR PERMIT TO DRILL HORIZONTAL WELL - FORM 1H

INDUSTRIAL COMMISSION OF NORTH DAKOTA
OIL AND GAS DIVISION
600 EAST BOULEVARD DEPT 405
BISMARCK, ND 58505-0840
SFN 54269 (08-2005)

PLEASE READ INSTRUCTIONS BEFORE FILLING OUT FORM.
PLEASE SUBMIT THE ORIGINAL AND ONE COPY.

Type of Work	Type of Well	Approximate Date Work Will Start	Confidential Status
Operator			Telephone Number
Address		City	State Zip Code

WELL INFORMATION (If more than one lateral proposed, enter data for additional laterals on page 2)

Well Name				Well Number			
Surface Footages F L F L		Qtr-Qtr	Section	Township N	Range W	County	
Longstring Casing Point Footages F L F L		Qtr-Qtr	Section	Township N	Range W	County	
Longstring Casing Point Coordinates From Well Head From WH From WH		Azimuth °	Longstring Total Depth Feet MD Feet TVD				
Bottom Hole Footages From Nearest Section Line F L F L		Qtr-Qtr	Section	Township N	Range W	County	
Bottom Hole Coordinates From Well Head From WH From WH		KOP Lateral 1 Feet MD	Azimuth Lateral 1 °	Estimated Total Depth Lateral 1 Feet MD Feet TVD			
Latitude of Well Head ° ' "		Longitude of Well Head ° ' "		NAD Reference	Description of (Subject to NDIC Approval)		
Ground Elevation Feet Above S.L.		Acres in Spacing/Drilling Unit		Spacing/Drilling Unit Setback Requirement Feet		Industrial Commission Order	
North Line of Spacing/Drilling Unit Feet		South Line of Spacing/Drilling Unit Feet		East Line of Spacing/Drilling Unit Feet		West Line of Spacing/Drilling Unit Feet	
Objective Horizons						Pierre Shale Top	
Proposed Surface Casing	Size -	Weight Lb./Ft.	Depth Feet	Cement Volume Sacks	NOTE: Surface hole must be drilled with fresh water and surface casing must be cemented back to surface.		
Proposed Longstring Casing	Size -	Weight(s) Lb./Ft.	Longstring Total Depth Feet MD Feet TVD		Cement Volume Sacks	Cement Top Feet	Top Dakota Sand Feet
Base of Last Salt (If Applicable) Feet		NOTE: Intermediate or longstring casing string must be cemented above the top Dakota Group Sand.					
Proposed Logs							
Drilling Mud Type (Vertical Hole - Below Surface Casing)				Drilling Mud Type (Lateral)			
Survey Type in Vertical Portion of Well Every 100 Feet		Survey Frequency: Build Section Feet		Survey Frequency: Lateral Feet		Survey Contractor	

NOTE: A Gamma Ray log must be run to ground surface and a CBL must be run on intermediate or longstring casing string if set.

Surveys are required at least every 30 feet in the build section and every 90 feet in the lateral section of a horizontal well. Measurement inaccuracies are not considered when determining compliance with the spacing/drilling unit boundary setback requirement except in the following scenarios: 1) When both the angle between the well bore and the respective boundary is 10 degrees or less and the well bore is within 150 feet of the respective setback requirement; or 2) If industry standard methods and equipment are not utilized. Consult the applicable field order for exceptions.

If measurement inaccuracies are required to be considered, a 2° MWD measurement inaccuracy will be applied to the horizontal portion of the well bore. This measurement inaccuracy is applied to the well bore from KOP to TD.

REQUIRED ATTACHMENTS: Certified surveyor's plat, horizontal section plat, estimated geological tops, \$100 fee.

See Page 2 for Comments section and signature block.

COMMENTS, ADDITIONAL INFORMATION, AND/OR LIST OF ATTACHMENTS

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Lateral 2

KOP Lateral 2 Feet MD	Azimuth Lateral 2 °	Estimated Total Depth Lateral 2 Feet MD Feet TVD	KOP Coordinates From Well Head From WH From WH		
Formation Entry Point Coordinates From Well Head From WH From WH		Bottom Hole Coordinates From Well Head From WH From WH			
KOP Footages From Nearest Section Line F L F L		Qtr-Qtr	Section	Township N	Range W County
Bottom Hole Footages From Nearest Section Line F L F L		Qtr-Qtr	Section	Township N	Range W County

Lateral 3

KOP Lateral 3 Feet MD	Azimuth Lateral 3 °	Estimated Total Depth Lateral 3 Feet MD Feet TVD	KOP Coordinates From Well Head From WH From WH		
Formation Entry Point Coordinates From Well Head From WH From WH		Bottom Hole Coordinates From Well Head From WH From WH			
KOP Footages From Nearest Section Line F L F L		Qtr-Qtr	Section	Township N	Range W County
Bottom Hole Footages From Nearest Section Line F L F L		Qtr-Qtr	Section	Township N	Range W County

Lateral 4

KOP Lateral 4 Feet MD	Azimuth Lateral 4 °	Estimated Total Depth Lateral 4 Feet MD Feet TVD	KOP Coordinates From Well Head From WH From WH		
Formation Entry Point Coordinates From Well Head From WH From WH		Bottom Hole Coordinates From Well Head From WH From WH			
KOP Footages From Nearest Section Line F L F L		Qtr-Qtr	Section	Township N	Range W County
Bottom Hole Footages From Nearest Section Line F L F L		Qtr-Qtr	Section	Township N	Range W County

Lateral 5

KOP Lateral 5 Feet MD	Azimuth Lateral 5 °	Estimated Total Depth Lateral 5 Feet MD Feet TVD	KOP Coordinates From Well Head From WH From WH		
Formation Entry Point Coordinates From Well Head From WH From WH		Bottom Hole Coordinates From Well Head From WH From WH			
KOP Footages From Nearest Section Line F L F L		Qtr-Qtr	Section	Township N	Range W County
Bottom Hole Footages From Nearest Section Line F L F L		Qtr-Qtr	Section	Township N	Range W County

I hereby swear or affirm the information provided is true, complete and correct as determined from all available records.			Date
Signature	Printed Name	Title	
Witness Signature	Witness Printed Name	Witness Title	

FOR STATE USE ONLY

Permit and File Number	API Number 33 - -
Field	
Pool	Permit Type

FOR STATE USE ONLY

Date Approved
By
Title

APPLICATION FOR PERMIT TO DRILL - FORM 1H
SFN 4615

1. Please refer to Section 43-02-03-16 of the North Dakota Administrative Code (NDAC) regarding an application for permit to drill.
2. Well-site preparation other than surveying and staking is forbidden prior to approval of an application for permit to drill.
3. Verbal approval may be given for site preparation by the Director in extenuating circumstances although no drilling activity shall commence until the application is approved.
4. The application for permit to drill shall be accompanied by a bond pursuant to Section 43-02-03-15 NDAC or the applicant must have previously filed such bond with the Commission, otherwise the application is incomplete.
5. Any incomplete application for permit to drill received by the Commission has no standing and shall not be deemed filed until it is completed.
6. The application for a permit to drill a well shall be accompanied by an accurate plat certified by a registered surveyor showing the location of the proposed well with reference to the nearest lines of a governmental section. The plat shall also include the latitude and longitude of the proposed well to the nearest tenth of a second, the North American Datum on which the survey was based, and the dimensions of the proposed spacing or drilling unit.
7. The application for permit to drill a horizontal well shall be accompanied by a "horizontal section plat" certified by a registered surveyor showing the internal dimensions of the spacing or drilling unit.
8. The application for permit to drill shall be accompanied by a permit fee of one hundred dollars.
9. The approved application for permit to drill shall terminate and be of no further force and effect unless a well is drilling, or has been drilled, below surface casing on the first anniversary of the date of issuance or renewal.
10. The original and one copy of this report shall be filed with the Industrial Commission of North Dakota, Oil and Gas Division, 600 East Boulevard, Dept. 405, Bismarck, ND 58505-0840